



The Closed-Loop Scoop

Washington State Department of Ecology, Solid Waste & Financial Assistance Program

November 2005

Publication No.
05-07-006

New Vehicle Facility Meets Environmental Regulations

And saves money, too.

The City of Spokane recently held an open house at its new vehicle fuel and wash facility at 2616 E. Broadway. This facility will save the City money, provide for compliance with environmental regulations, and allow for improved emergency preparedness.

The City estimates that the facility will provide fuel and/or washing services for 120 City vehicles a day. Other governmental agencies will be able to pay for services at the facility.

"The City's fleet includes hundreds of vehicles—from snow plows and garbage trucks to police cars and fire engines," says Don Roberson, the City's Fleet Services Director. "This facility is designed to help us manage and maintain these expensive City assets."

The City uses about 1 million gallons of fuel annually. The City will save money by buying and dispensing all of its own fuel, Roberson says. No additional employees are needed to operate the facility since it's fully automated with advanced video surveillance.

Roberson's staff will, however, be able to more closely track use of fuel and other vehicle fluids. All the vehicles in the City's fleet are being equipped with a wireless automated fueling system called Maximus WAF. Employees will go to the fueling facility, insert the fuel nozzle in their City vehicle, and the system will do the rest. The system verifies that the vehicle belongs to the City and that it can accept the chosen fuel. It also will capture the day, date, time, vehicle number, odometer reading, engine hour reading, and gallons of fuel dispensed. It also tracks how much oil, antifreeze, or transmission fluid that is dispensed.

Such information will enable the City to analyze the cost-effectiveness of specific vehicles and tasks. Operations changes and future buying decisions can be made with those analyses.

Meanwhile, the facility allows the City to stay in compliance with environmental regulations. Until now, the City had been washing its vehicles at a couple of different locations that didn't meet new standards. Environmental regulations demanded that facilities capture their wash water and meet other environmental rules. This facility reclaims virtually all wash water and recycles much of it for reuse.

The fuel portion of the facility is environmentally friendly, too. The facility includes advanced vapor recovery during fuel delivery and dispensing. It also dispenses alternative fuels, including compressed natural gas and propane, used by some City vehicles.

The facility also is designed to keep running during a natural disaster. A backup generator will keep the fuel flowing during a power outage.

The fuel and wash facility cost about \$5 million to design and construct. It was paid for with funds from the City's Solid Waste utility. Customers of the site will pay back the utility over time. The site also is owned by the Solid Waste Management Department. Levernier Construction was the contractor on the project, and ALSC Architects was the architect and construction manager.

Contents

Governor's Awards	2
City Hall Can't Be Beat	3
Rubber Sidewalks Hit Street ...	5
SWANA Awards Come Home .	6
Electronics Update	7

Governor awards outstanding environmental successes

Honoring some good actors

This October, five businesses received the Governor's Award for Pollution Prevention & Sustainable Practices, the state's highest honor for taking care of the environment while doing business in Washington.

The awards went to four commercial businesses and a not-for-profit hospital. Each of the winners found innovative ways to offer services and make products while reducing or eliminating hazardous waste and conserving vital resources such as energy and water.

In addition to preventing pollution, the winners also were honored for business practices that are "sustainable" – that is, they support the vitality of the economy, the environment, and the community. Tom Fitzsimmons, Governor Christine Gregoire's chief of staff, and Jay Manning, the Department of Ecology director, presented the awards.

The winners of the 2005 awards are:

- **Meridian Collision Center Inc.** of Puyallup, for avoiding the use of toxic materials and conserving energy and resources.
 - **Totem Ocean Trailer Express** of Tacoma, for conserving fuel and fresh water, protecting the environment from invasive species, and supporting Alaska's recycling efforts.
 - **The University of Washington Medical Center** in Seattle, for eliminating the use of a significant toxic chemical, conserving water and energy, reducing waste, and supporting the regional community.
- In addition to these efforts, the award winners reached out to their customers, clients, and other facilities in their fields to promote pollution prevention and sustainable practices.
- "These winners are our role models for the future," said Fitzsimmons. "They show that we can design a new and better future, a future that does not depend on practices that gradually erode our natural resource base."
- The judges who selected the winners included past award recipients, energy and pollution-prevention experts, and representatives from labor and environmental groups.
- The judges evaluated the entries based on innovations to reduce toxic materials and waste and use less energy and water, as well as other ways they have protected the environment.

- **Ball Metal Beverage Container Corp.** of Kent, for conserving water, avoiding the use of toxic materials, reducing air emissions, and efficiently using materials.
- **Columbia Lighting** of Spokane, for eliminating the use of a significant toxic chemical, conserving water, and reducing air emissions, waste water, and other wastes.

Calendar of Events

November 11-13, 2005, Tilth Producers Conference will be held in Wenatchee. To learn more, call 206-442-7620, or visit the conference Web site at <http://www.tilthproducers.org/conference.htm>.

November 15, 2005, Washington Recycles Day, will be recognized with four special business recycling workshops: Bellingham, Spokane, Tacoma, Yakima. Sponsored by the Washington State Recycling Association. For more information, visit <http://www.wsra.net/Conference/WRD.html>.

November 17, 2005, Kitsap Co. Reduce, Reuse, and Recycle Show, from 10am to 3pm, at the Norm Dicks Government Center in Bremerton. For more information, contact Colleen Minion-Pierce, 360-337-4568 or cminionp@co.kitsap.wa.us.

December 8-9, 2005, Northwest Environmental Conference, Portland. To learn more, visit <http://www.nwec.org/>.

Illahee Earth Matters Lecture Series: 11/3, Terry Tempest Williams; 1/25, James Howard Kunstler; 2/24, Kenneth Deffeyes; 3/22, Maude Barlow; 4/21, Michael Klare; 5/10, Michael Pollan. To learn more, call 503-222-2719 or visit the Web site at <http://www.illahee.org/lectures>.

January 22-25, 2006, US Composting Council's Annual Conference will be held in Albuquerque, New Mexico. To learn more, call 631-737-4931, or visit the conference Web site at <http://www.compostingcouncil.org/index.cfm>.

New City Hall Keeps Seattle in the LEED

Receives gold rating for environmental design

Mayor Greg Nickels announced last month that the U.S. Green Building Council has awarded the Seattle City Hall a gold LEED (Leadership in Energy and Environmental Design) rating.

“Receiving a gold rating is an extraordinary achievement and reflects the city’s leadership in protecting the environment,” Nickels said. “This building is a gathering place for the people of Seattle, so it is fitting that it reflects the city’s values of protecting the water, land, and air today and for generations to come.

Six other City of Seattle buildings have also received LEED certification: the downtown Justice Center (silver); Fisher Pavilion at Seattle Center (certified); Park 90-5 (building C – gold; building A – silver); the Seattle Central Library (silver); the Highpoint Community Center (certified); and the Carkeek Park Environmental Learning Center (gold). In all, 14 public and private buildings are LEED certified in Seattle, the most in any city in the country.

Some sustainable elements of the City Hall are:

- **Water conservation and on-site water detention and reuse**
 - To reduce the potable water demand, low-flow plumbing fixtures, waterless urinals, and drip irrigation were installed.
 - Rainwater is harvested and collected in a cistern for landscape irrigation and toilet flushing to further reduce potable water use.
 - A green roof with drought-tolerant plants absorbs and filters rainwater, reducing the volume of storm water requiring treatment.
- **Use of local and regional materials, recycled-content materials, demolition and construction waste recycling**
 - A variety of recycled materials from local sources were installed, such as concrete, steel, carpet, ceiling tiles, gypsum wallboard, restroom partitions, and ceramic tile.
 - Concrete from the previous building was reused in both the concrete mix for the new City Hall, as well as for shoring, and the old parking garage was crushed for fill.
 - On-site recycling during construction saved more than a million dollars by diverting 25,924 tons of waste (representing almost 90 percent of the total construction waste materials) from the landfill. Overall, concrete made up 65 percent of the material; wood and metal combined made up another 25 percent.
- A high percentage of materials were procured regionally, reducing energy consumption in the transportation of materials.
- Fly ash was used in some of the glass, allowing reuse of waste materials and reducing the heat load from sun.
- **Indoor environmental quality and energy conservation**
 - City Hall was designed for a 100-year life span through material choices, spatial layout qualities, and the ability to accommodate updates in city services and future technology. The building layout allows flexibility for occupants, and barrier-free design provides accessibility for all.
 - Paints and glues low in volatile organic chemicals were used.
 - CO₂ detectors change the airflow to ensure healthy air.
 - Solar-activated light sensors, dimmers, and occupancy sensors are used.
 - Lights are on timers and in zones.
 - Efficient elevators consume less energy.
 - HVAC is energy efficient.

Opened in 2003 and located on Fourth Avenue between James and Cherry streets, City Hall is a civic center that is open and inviting to the public. In addition to hosting numerous meetings, the building contains TV studios, plazas, fountains, event space and other amenities. This winter it will also include an emergency shelter for the homeless. Although highly energy-efficient, these features mean the building is open longer and uses more energy than a typical office tower.

The U.S. Green Building Council developed the LEED green building rating system as a formal certification process for building projects. Different levels of green building certification (certified, silver, gold, platinum) are awarded based on the total credits earned in each of several categories: site, energy, material and resources, indoor environmental quality, and water. The City of Seattle was the first municipality in the nation to formally adopt a LEED standard for its projects, and many other cities across the country have now followed suit.

City Hall was designed by the joint architectural venture of Bassetti Architects and Bohlin Cywinski Jackson. The contractor was Hoffman Construction.

New Litter Posters Available

Estan disponibles los carteles nuevos acerca de la basura tirado

Updated litter posters are now available in both English and Spanish. All posters are in color and are approximately 12 x 18 inches. For information on how to get copies please contact Dawn Drake, Assistant Litter Programs Coordinator, 360-407-6112 or ddra461@ecy.wa.gov.

You can order "Litter and it will hurt" car litterbags through the Washington State Department of Printing. Go to the Web page <http://www.prt.wa.gov/>. In the upper right hand corner, click on "General Store." The Web page will ask you to register, if you are new to the site. Click on "I'm New" and follow prompts to sign in. From the Store Lobby, click on "Shop by Agency" and pick Department of Ecology. At the bottom of the list of items Ecology has available, click on "Want to Litter? Fine – litterbags" to go to order page for litterbags. The first 1,000 are free!



Want to litter? Fine.

Food or beverage container	\$103
Unsecured load	\$194
Lit cigarette	\$1025
Illegal dumping	\$1000-5000 + jail time

Please subject to change and may vary locally.

Litter and it will hurt.

Get caught littering and you'll feel a sharp and unpleasant pain in the wallet. If you see someone littering or dumping, remind them how much littering hurts by reporting their license number.

A message from the Washington State Department of Ecology.

REPORT VIOLATORS 866-LITTER-1
711 (TTY Relay)

¿Quiere tirar basura? Lo multarán.

Por tirar un recipiente de comida o bebida	\$103
Por llevar carga no cubierta y segura	\$194
Por tirar un cigarrillo prendido	\$1025
Por depositar basura ilegalmente	\$1000-5000 + tiempo en la cárcel

Las multas están sujetas a cambio y varían según el lugar.

Tire basura y lo multarán.

Si es reportado que usted está tirando basura, va a recibir un dolor en forma de una multa. Si ve a alguien tirando basura o depositando basura ilegalmente, debe reportar el número de sus placas al número telefónico abajo.

Un mensaje del Departamento de Ecología del Estado de Washington.

Reporte cualquier violación a 866-LITTER-1
711 (TTY Relay)

Okay, one last time: This is not a urinal.

Get caught tossing a bottle of urine and you'll pay \$1,025. Fines for littering range from \$103 to \$5,000. Remember, Washington State Patrol has eyes out for violators. (Not to mention their noses).

Litter and it will hurt. REPORT VIOLATORS 866-LITTER-1

Bien, por última vez: Esto no se usa para orinar.

Si lo vemos tirando un bote con orina pagará \$1,025 de multa. Las multas por tirar basura varían entre \$103 hasta \$5,000. Recuerde que la Patrulla Estatal de Caminos está siempre vigilando.

Tire basura y lo multarán. Reporte cualquier violación a 866-LITTER-1

Ecology Department Building Named Energy Star

The state Department of Ecology's headquarters building in Lacey has been named an "Energy Star" by the federal Environmental Protection Agency (EPA). EPA's evaluation found that the Ecology headquarters, located at 300 Desmond Drive S.E. in Lacey, is one of the most energy-efficient office buildings in the nation.

"We require less energy than average at this building, and we've reduced our effect on the environment from day-to-day operations," said Carol Fleskes, administrative services manager for Ecology. "To us, walking our talk means being a good example for other office buildings."

EPA's energy performance target rating uses a 1 to 100 scale, with lower energy use yielding a higher performance rating. An Energy Star rating must be at least 75. The Department of Ecology building has a performance rating of 81 and is currently the only state-owned building with an Energy Star label.

The Ecology headquarters building uses 54.6 kBtu per square foot per year, while an average building with a median rating of 50 uses 82 kBtu per square foot per year. The most energy a building can use and still reach Energy Star status is 59.1 kBtu per square foot.

Seattle Neighborhood to Pilot Rubber Sidewalks

Recycled materials give tree roots room to breathe and grow

The City of Seattle has taken a bold step in testing new sidewalk materials: the Seattle Department of Transportation (SDOT) will install 375 square feet of rubberized sidewalk pavers along the west side of 8th Avenue South between the South Park Community Center and South Rose Street. South Park was selected because the community has a number of mature trees with surface roots causing sidewalk damage and the neighborhood received funding for spot sidewalk repairs through the City's Cumulative Reserve Fund. Work began on Monday, September 26th, and was expected to be mostly complete by Thursday, September 30th.

Other South Park sidewalks have been repaired with asphalt paving that can be installed over the roots. The new rubber sidewalks will give the three existing street trees a better chance to thrive and extend their useful lives. The rubberized sidewalk panels also make use of recycled materials; there is one recycled tire for every 2 x 2.5 foot panel.

This new sidewalk material has been used extensively by other cities, especially in California where the product is made. Like recycled paper, the

new material is a bit more expensive, but has advantages over traditional concrete. City maintenance staff can remove and replace damaged portions, rather than having to tear up an entire section of sidewalk, which is expensive. The rubber sidewalks flex, so they're softer and easier to walk on. This is important to the citizens of Seattle, as it is one of the most pedestrian-friendly cities in the nation.

According to Liz Ellis, the project manager, "Everyone benefits. The City will save money, we're piloting an environmentally innovative product, and we'll help Seattle's trees."

The Seattle Department of Transportation Urban Forestry section crews maintain 35,000 street trees and over 55 acres of landscaping.

The Seattle Department of Transportation builds, maintains, and operates Seattle's \$8 billion transportation infrastructure. To further Mayor Nickels' goal to get Seattle moving, the department manages short- and long-term investments in streets, bridges, pavement, and trees, that better connect the City with the region.

Richland Names "Green Business of Year"

Mayor Rob Welch announced the recipient of Richland's first ever "Green Business of the Year" award, along with an honorable mention, during the city council's September 20 meeting. Pacific Northwest National Laboratory (PNNL) won the contest, with honorable mention going to Energy Northwest.

"PNNL is proven to be a leader in environmental management," said Welch in presenting the award. He noted that PNNL's 3,900 employees help to recycle 28 metric tons of material every month. Energy conservation efforts include an employee contest that resulted in a savings of more than 400,000 kilowatt hours. Since 1994, PNNL has reduced hazardous waste generation ten-fold. Recent efforts have reduced landscape watering time by 20 percent. PNNL also buys "green," as 14 percent of its electricity comes from renewable sources.

Energy Northwest (EN) recycles an average of 28,000 pounds of material each month. Within the last five years, EN has reduced hazardous substance use by 4,891 pounds. Conservation measures include the installation of motion-sensor paper-towel dispensers for its 1,134 employees. Water-conservation efforts include drip-system landscaping and water-smart plumbing. Energy Northwest features an employee garden, containing native landscaping, and environmental awareness training for all employees.

Richland's Green Business of the Year Award was developed to recognize businesses that make an effort to be environmentally sound. Their environmental savings help extend the life of the Richland landfill, help reduce maintenance and repair costs for municipal utility operations, and save the businesses money.

Judges included staff from Richland's energy, solid waste, household hazardous waste, and water operations divisions and the Richland Chamber of Commerce.

King County Solid Waste Division Wins 3 Excellence Awards

Local environment comes out a winner, too

The King County Solid Waste Division was honored this fall by the Solid Waste Association of North America (SWANA) with three 2005 Excellence Awards.

The Solid Waste Division awards came in three separate categories—Gold for Landfill Gas Control, Bronze for Landfill Management, and Bronze for Special Waste Management.

"We are truly honored to be recognized by the nation's leading solid waste professional organization for our programs," said Theresa Jennings, Director of the Solid Waste Division. "These awards highlight the dedication of our staff to protecting our natural environment."

SWANA's Excellence in Solid Waste Management Program encourages innovation and acknowledges outstanding programs and facilities committed to the "environmentally and economically sound management of solid waste." This year's winners were recognized at a luncheon at WASTECON 2005 on Thursday, September 29, in Austin, Texas.

King County's Landfill Gas Control system won the top award in the nation for the gas collection

system at the Cedar Hills Regional Landfill. Always settling due to waste decomposition, a landfill drags wells, valves, and pipes along with it. The innovative gas collection system at Cedar Hills is designed to move with the waste as it settles.

The Bronze award for Excellence in Landfill Management was awarded for the Solid Waste Division's focus on preventive maintenance of equipment, facilities, roads, and environmental control systems at the state-of-the-art Cedar Hills Regional Landfill. This focus saves the ratepayers money and prevents unplanned releases to the environment,

King County Solid Waste also received the Bronze for Special Waste Management for a month-long pilot project that tested the feasibility of collecting TVs for recycling in a retail store setting. A partnership with Good Guys, an electronics retailer with 4 stores in Western Washington, showed that an in-store take-back program was both feasible and popular—they recycled almost 100 tons of televisions. For more information about the Solid Waste Division please visit <http://www.metrokc.gov/dnrp/swd/>.

"A partnership with Good Guys . . . showed that an in-store take-back program was both feasible and popular. . ."

Tacoma Brings Another Excellence Award to Washington State

This year, SWANA awarded the City of Tacoma's Solid Waste Management Division with a Gold for Communication. The Division created a comprehensive internal recycling program called Tacoma Recycles @ Work, which increased the types of recyclables accepted at work, and incorporated waste reduction and recycled-content purchasing components.

To get the word out to employees about the new recycling program, Solid Waste Management incorporated many innovative marketing and education strategies to make Tacoma Recycles @ Work fun and visual, helping increase awareness and participation.

Results

Goals	Employee survey
Increased recycling by 12% (Goal: 12%)	98.6% aware the City started a new recycling program
Reduced waste by 16% (Goal: 2%)	99.5% recycle at work
Reached 13% of total office supplies purchased with recycled content (Goal: 10%)	91.2% rated the new recycling service as "excellent" or "good"

Return on Investment

Aside from nearly maximum awareness and participation in Tacoma Recycles @ Work, city hall's garbage bill was reduced by more than \$1,400 for the year by completely eliminating one 300-gallon container pickup per day. In addition to monetary cost savings, the reduced garbage and increased recycling effort as part of Tacoma Recycles @ Work provided these environmental benefits:

Energy savings: \$ 21,848	Greenhouse gas reduction: 84 metric tons
Reduced air emissions: 150 tons of particulates	Trees saved: 1,716
Reduced water emissions: 0.56 tons of particulates	

An Update on Electronic-Product Recycling

by Jay Shepard, sustainability advisor, Department of Ecology

Industry, the states, and the federal government are supportive of a national electronics-recycling solution. However, the likelihood of Congress passing anything on the issue seems remote. Three states—California, Maine, and Maryland—have electronics recycling programs, but all of them are too new for us to tell how well they will work.

Here in Washington, the state Legislature asked Ecology, through Engrossed Substitute House Bill 2488 (ESHB 2488), to recommend a program and financing mechanism for recycling unwanted consumer electronics products, specifically consumer computers, televisions, and computer monitors.

Talks between stakeholders and Ecology started soon after ESHB 2488 was adopted. We wanted to get their input and learn what is important to each of them. With interested parties on both sides of every issue, getting agreement on a solution promises to be a challenge.

We started the process using three basic themes. For years, Industry in Washington has told Ecology:

- Don't tell them how to do things; just tell them what we want done.
- Industry can do anything cheaper, better, and faster than government.

We decided to take them at their word and we added a third:

- Develop a program that is the best deal for, and in the best interests of, the citizens of the state.

Well, to say the least, it has been interesting. For example, one industry group has taken the position that in this case, government **can** do things better than the private industry. They want us to charge the consumer an “advanced recovery fee” to pay for a government-run program. However, this approach to funding leaves the manufacturer free of responsibility.

There are other issues in this process that are equally difficult. Here are some highlights of the proposal currently on the table:

- A standard program is run by a quasi-governmental entity, with a board of directors made up of representatives from member manufacturers.
- Each manufacturer is responsible for a portion of products returned as represented by their brands in the products collected for recycling the previous year.

- Costs can be distributed among members, based on the percentage of their current market share of sales.
- The entity is required to submit and gain approval of a plan for collecting, transporting, and processing electronic products for recycling on behalf of their members.
- Manufacturers can opt out of the standard program and must submit an independent plan to Ecology that describes how they will provide collection, transportation, and processing services throughout the state.
- It is the responsibility of the consumer to participate in the program.
- It is the intent of the proposal that all unwanted electronic products be recycled through the free manufacturer-funded system. If consumers choose to dispose of their products, a surcharge is levied as an incentive to choose recycling.

Issues related to recycling-facility performance standards need to be ironed out. But, all in all, the proposal is promising.

A system to fund collection of electronic products for recycling, however, is only a first step toward product stewardship. (For a comprehensive view of the principles of product stewardship, please visit <http://www.productstewardship.us/principles.html>.)

To truly address product stewardship, the proposal should contain a requirement to “design for the environment.” Designing for the environment includes eliminating hazardous-substance content, designing for easy disassembly, and minimizing the different types of materials used.

Product stewardship also means using recycled material in new products sold by the manufacturer; e.g., using recycled plastic to make new computer shells.

Currently, manufacturers have agreed to sell new electronic products that meet European Union standards to eliminate seven specific hazardous substances. The Restrictions on the use of Hazardous Substances Directive (RoHS) targets six chemicals—lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB) or polybrominated diphenyl ethers (PBDE) (notwithstanding DECA-BDE, which is still under debate). That is a start.

Ecology will deliver its report to the Legislature in December. Look for another article after the 2006 legislative session to find out how we did.

For detailed 2488 process information, meeting materials and meeting summaries go to <http://www.ecy.wa.gov/programs/swfa/ewaste/>.

**Department of
Ecology**

*The Department of
Ecology is an equal
opportunity agency.*

*Printed on 100% recycled
paper, containing 50%
reclaimed sugar cane fiber
and 30% postconsumer
waste, using vegetable-
based ink.*

**Read this
newsletter online!**

The Closed-Loop Scoop newsletter should not create waste. If you would like to receive a copy of the newsletter via e-mail please send a message to jbil461@ecy.wa.gov with the subject line reading "Subscribe Closed-Loop Scoop." To make changes to our mailing list, please contact Jim Bill at 360-407-6125 or jbil461@ecy.wa.gov

*If you have special
accommodation needs or
require this document in an
alternative format, please call
360-407-6129 (voice) or
360-407-6006 (TTY).*

Give Us the Scoop!

If you see news happening, or if you make news yourself, please let us know. You can submit articles or notices to the editor by regular mail or by e-mail.

We eagerly await your news.

Newsletter Editor:

Jim Bill
SWFAP
Dept. of Ecology
P.O. Box 47600
Olympia, WA 98504-7600
360-407-6125
jbil461@ecy.wa.gov

FIRST CLASS
U.S. POSTAGE PAID
WASHINGTON STATE
DEPT. OF PRINTING

